

Exposure Prevalence of the Nursing Staff to the Occupational Risks in the Regional Hospital of Vlora in 2013

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Abstract: ***Purpose:** The evaluation of job risk impact in medical staff's health and in Regional Hospital of Vlora services in 2013. Another purpose is the evaluation of the relationship between medical staff 's knowledge, which is about safe work execution procedures, and biological risk accidents number. **Specific Objectives:** 1.The relationship between social-demographic factors and biological risk accidents number. 2. The relationship between factors complex, notification, medical staff qualification, procedure appliance, risk situation reporting and the biological risk accidents number in 2013. **Study Results:** In this study, there were used 4 questionnaires, which were distributed to 95 nurses in the 7 services studied. From them 69 were females (72.6%) and 26 were males (27.3%). They thought that biological risk was in high level (81%), followed by ergonomic risk (64%) and psycholavoral risk (63%). As a conclusion, the nurses thought that the most critic service was the one of Surgery and Infectious, followed by service of Pediatrics and Intensive Therapy.*

Keywords: Exposure, Job risks, Nurse, Regional Hospital of Vlora, Biological risk, Ergonomic.

1. Global data

The relationship between work and health is a complex one. Work is useful for health because it provides money, a self-evaluation sense and a social network with colleagues and friends. However, work can harm health, so a lot of studies have been concentrated at this aspect. A worker dies from job accident or disease every 15 seconds. About 160 workers have accidents during work every 15 seconds. Every day 6300 people die because of occupational or job accidents. There are about 2.3 million deaths in a year. About 317 million accidents happen every year, where some of them happen because of missing at work (Extended Absences from Work) [56], [57]. Half of the world population and social-economic development main contributors are the employed persons in time period of 2008-2017. However, The Employers International Organization registers 250 million job accidents and about 160 million job diseases every year [58]. About 2.9 billion employed persons all over the world are exposure to risky factors in their job place [59].

2. Statistical analysis of data

The statistical analysis of 86 variables was executed by a statistical program SPSS 17.0 with license number: 8096066852. The analysis includes a descriptive statistic of frequency for every variable. This analysis is also detailed according to the variables 1,2,3,4,5 and 6 which are: pavilion, age, sex, civil state, educational level and working time. The "Ordinal Regression" method has been used for coefficient and relationship (dependence) analysis.

3. The Limitations and Difficulties During the Study

Many studies at Regional Hospital of Vlora -Total lack of participation by nurses, where some of them were mainly in

verge of retirement age and refused to complete the questionnaires. However, they accepted to answer some open questions during interviews. Most of nurses collaborated to complete the questionnaires and to answer the questions honestly during the interview too.

Intercepted fulfillment of questionnaires is another difficulty encountered in other flux moments at work, where the questionnaires fulfillment has been intercepted and has been restarted after 10-30 minutes later.

The short time period of the study (only a one-year period.)

Small studied sample- limited number of medical staff: 95 (for the first questionnaire) and 45 (for the third and fourth questionnaire).

4. Study Results

Variable operability

Table. 1. Questionnaire 1+3+4 (first part of each questionnaire)

Variable	Indicator	Interval	Type
Independent-Social-demographic factors.	Service	Pathology Surgery Intensive Therapy Admission-Urgency Operation Room- Microsurgery Pediatrics Infectious	Nominal Polytomic
	Age	< 30 years 30-40 years > 40 years	Continued Numeric
	Sex	Female Male	Nominal category

Civil State	Single Relationship Married Eve Others	Nominal
Education Level	Middle High Master	Nominal
Work Experience	< 1 year 1-10 years > 10 years	Continued Numeric
Work Rounds	A.M Afternoon (P.M) Night	Nominal
Work hours a day	6-8 hours 9-16 hours > 16 hours	Continued Numeric

Variable		each person or group to a disease or illness.		
Closed survey against risk	Physical	Staff that considers itself exposure to physical risk	Yes No	Dicotomic
	Biological	Staff that considers itself exposure to biological risk	Yes No	Dicotomic
	Chemical	Staff that considers itself exposure to chemical risk	Yes No	Dicotomic
	Ergonomic	Staff that considers itself exposure to ergonomic risk	Yes No	Dicotomic
	Psychosocial	Staff that considers itself exposure to psychosocial risk	Yes No	Dicotomic
	Related with security and environment	Staff that considers itself exposure to security and environment risk	Yes No	Dycotomic

Table 2: Questionnaire 1-continuation

Variable	Conceptual definition	Operational definition	Subdivision	Indicator
Health-Depended Variable	Physical, mental and social state of medical staff.	It's the physical, mental and social prosperity and not illness lack.	Yes No	Dicotomic
Risk factors during work-Depended	Risk factors during work	It's every situation, social-class habit of environment that increases vulnerability of	Yes No	Dicotomic

Table 1: Nurse perception about the suitability of the working environment by the relevant service

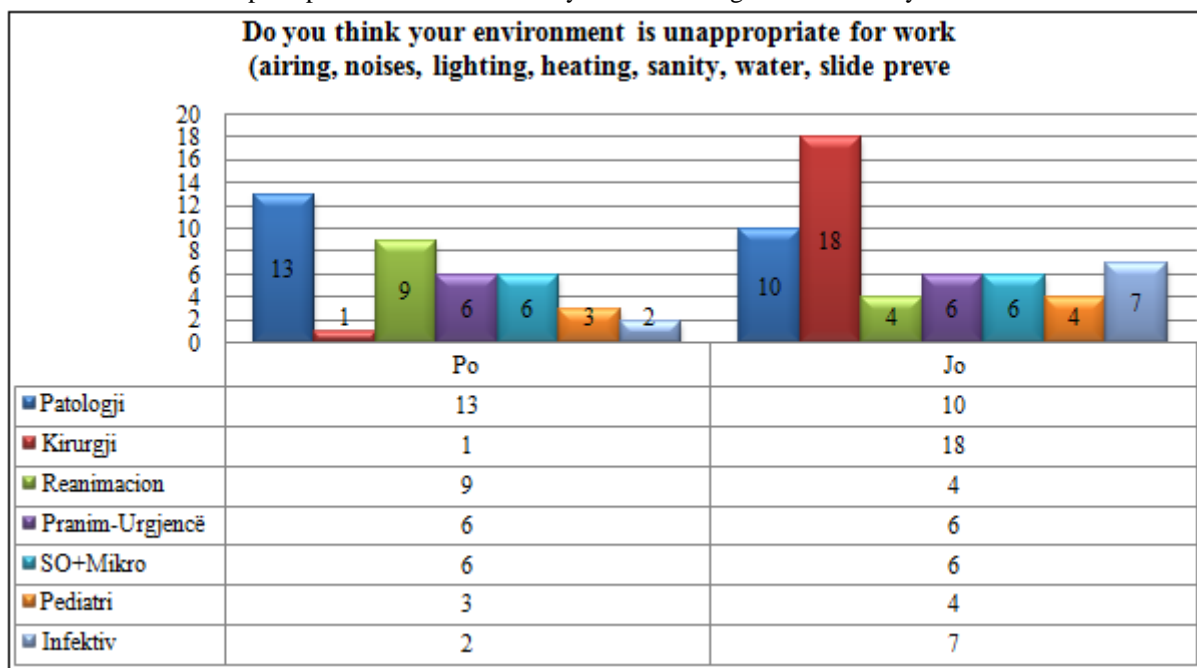


Table 2: Perception of risk type to which the nurse is exposed about the relevant services

Which of the risks are you exposed to?

	Pathology	Surgery	Reanimation	Admission-Urgency	SO+Mikro	Pediatrics	Infectious paviljon
Biological risk	13	19	12	9	9	6	9
Chemical risk	5	19	6	5	7	2	5
Physical risk	8	17	5	5	6	3	2
Ergonomic risk	7	19	7	6	9	5	8
Psychosocial risk	10	17	7	8	7	5	6
Security and environment risk	11	18	7	3	9	3	1
Total	23	19	13	12	12	7	9

Table 3: Knowledge about existence of the enterprise doctor according to relevant services

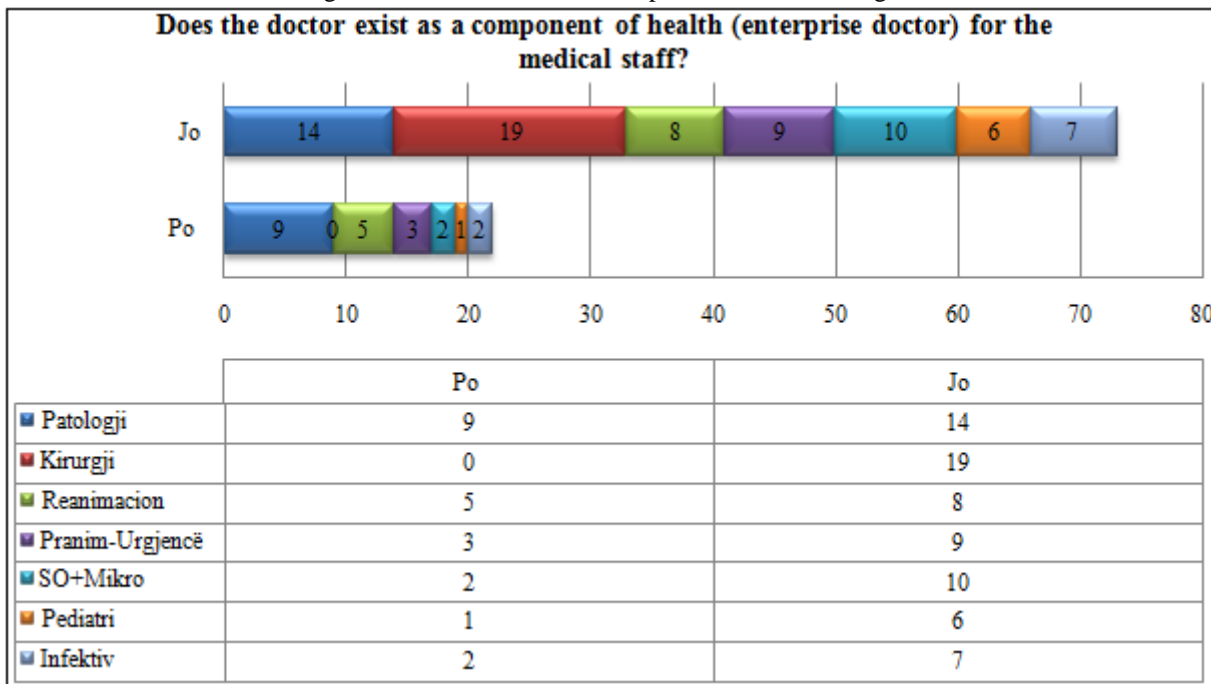


Table 4: Knowledge about existence of the manual for the work risks prevention according to relevant services?

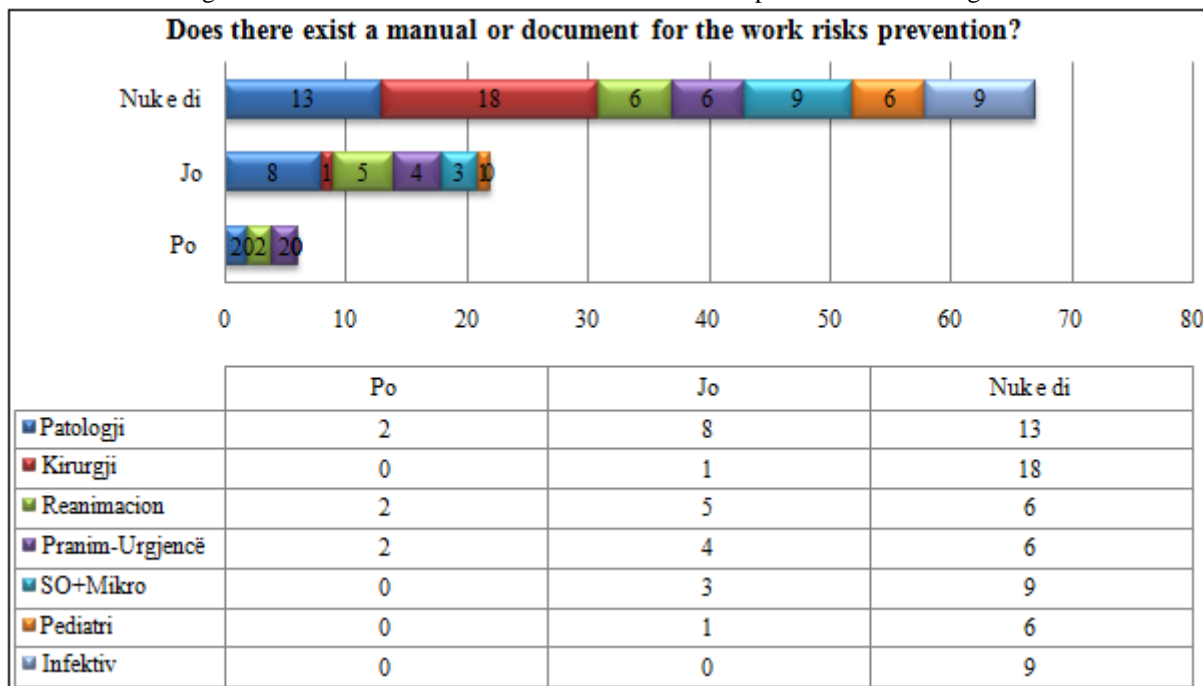
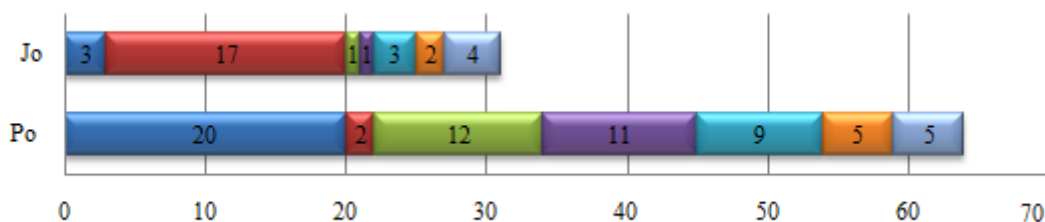


Table 5: Praktika mbi informimin e personelit infermieror mbi rrezqet në pune në lidhje me shërbimin përkatës/Medical staff's notification practices for the work risks about the relevant services

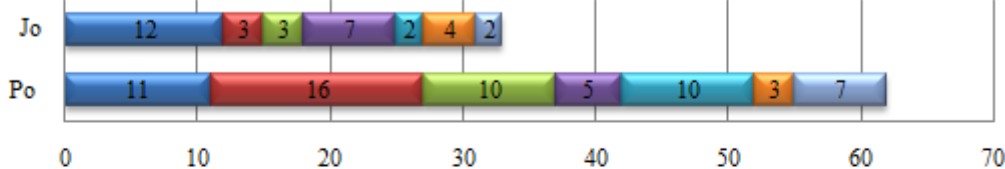
Are you informed about work risk?



	Po	Jo
Patologji	20	3
Kirurgji	2	17
Reanimacion	12	1
Pranim-Urgjencë	11	1
SO+Mikro	9	3
Pediatri	5	2
Infektiv	5	4

Table 6: Imunoprofilacsy at work about relevant services

Are you vaccinated for profilaxy from the moment of admission at work till now?



	Po	Jo
Patologji	11	12
Kirurgji	16	3
Reanimacion	10	3
Pranim-Urgjencë	5	7
SO+Mikro	10	2
Pediatri	3	4
Infektiv	7	2

Table 7: Declaration of the accident types as a result of nurse's work about relevant service

Accidents which you have undergone at work

	Pathology	Surgery	Reanimation	Admission-Emergency	OR+Microsurgery	Pediatrics	Infectious paviljon
Infections	3	12	-	2	5	5	8
Cutting and drilling wounds	10	17	10	9	7	4	4
Distorsion lumbo-sakral	1	7	2	-	3	-	-
Back hurts	-	15	4	6	7	4	4
Kontuzione	-	4	1	-	1	-	1
Fractures	-	1	1	1	-	1	1
Trauma	-	1	-	-	-	1	-
Abort	-	-	2	-	-	-	-
Physical violence	0	5	1	4	3	2	-
Psycho Violence	2	9	2	3	5	1	1
Offence	15	10	5	4	6	-	-
Exposure to blood	7	8	5	9	8	7	9
Bad administration of medicine	-	-	3	1	-	2	2

Blood sample taken from the wrong patient	1	-	1	-	1	-	2
Procedure execution to the wrong patient	1	-	-	-	-	-	-
Total	23	19	13	12	12	7	9

Table 8: Declaration of accidents causes by the medical staff about the relevant services.

Cause of the accidents

	Pathology	Surgery	Reanimation	Admission-Emergency	OR+Microsurgery	Pediatrics	Infectious paviljon
Lack of personal protective tools	18	13	6	6	6	5	7
Work tools	11	14	9	7	9	7	6
Rule and organization lack	2	7	1	2	7	2	4
Hospital waste bad management	3	3	7	2	4	3	2
Weight-lifting	8	16	5	2	4	2	3
Slide and fall in pavilion or stairs	2	5	1	-	1	1	1
Patient contact during manipulations	6	10	5	4	5	2	6
Conflicts with patients	5	7	3	-	3	2	-
Conflicts with familiars or visitors	7	13	6	8	8	1	1
Conflicts with colleagues and superiors	3	11	1	1	1	1	-
Total	23	19	13	12	12	7	9

Table 9: Declaration of concern types by the medical staff about the relevant services.

If yes, what kind of concerns do they have?

	Pathology	Surgery	Reanimation	Admission-Emergency	OR+Microsurgery	Pediatrics	Infectious paviljon
Influence	3	17	6	9	5	3	4
TBC	1	-	-	-	-	-	-
Hepatitis B	-	-	-	-	-	-	1
Hepatitis C	-	-	-	-	-	-	-
HIV/AIDS	-	-	-	-	-	-	-
HTA	-	6	-	-	-	-	-
Stress	3	17	3	4	6	5	6
Varicose	1	5	1	-	2	-	1
Dorsal-lumbar pain	-	15	3	-	2	-	2
Vertebral disc hernia	1	-	-	-	1	-	-
Urinary infections	2	10	-	-	2	4	5
Dermatitis	1	3	3	2	1	2	5
Neurological problem	-	-	-	-	2	-	-
Respiratory problems.	4	9	2	4	5	3	6
Total	23	19	13	12	12	7	9

Table 10: Measures that must be applied for request fulfillment of the medical staff about particular services. What measures do you want to be applied in the future about the security and health of the nurse at work?

	Pathology	Surgery	Reanimation	Admission-Urgency	OR+Microsurgery	Pediatrics	Infectious paviljon
Needed material	18	13	12	6	6	3	1
Personal protective tools	16	13	12	10	8	2	9
Work-helping devices	12	4	12	6	5	5	-
Nurse's health evaluation	18	16	13	9	10	6	8
Health promotion at work	8	1	6	1	4	6	-
Training and activities	10	5	7	6	8	1	2
Sanitary conditions	11	7	9	4	6	7	5
Other requests	-	-	+	+	-	-	-

5. Recommendation

5.1 For Employer

- Measure taking for period evaluation to job risks in order to manage them.
- Improvement of hospital environment in general
- Universal, personal and collective measure insurance in order to prevent the spread of infectious and viral diseases, nurse's health harm, temporary and permanent disability, invalidity and death.
- Functional medical staff.
- Manual insurance to prevent risks at work.
- Insurance of work accidents protocol in order to evaluate, reduce, manage, prevent and documentate accidents at work in relevant registers.
- Functional Health and Security Council at work with representatives from the employers.
- No failure or underestimation in any case, for the medical certificate of the new medical staff, which will be employed. Also examination and reexamination of new medical staff by the employer.
- Training and qualification of medical staff adapted with the skills and the work position (the risks also).
- Period evaluation of medical staff's health every time there can be a risk.
- Insurance, maintenance and replacement of work tools (if necessary).
- Insurance of protective equipment for the medical staff (handles, facial mask, cap, glasses, uniform, closed slippers etc)
- Insurance of devices for measuring: temperature, noises, humidity etc. in Regional Hospital of Vlora.
- Respect with correctness to the schedules for familiars and visitors, security cameras placement in order to reduce medical staff exposed to offence and physical or mental violence. Insurance of punishment legal procedures for the authors of the penal act.

5.2 For Nurses

- Being careful, responsible and professional at work.
- Always using personal protective tools
- Maintenance and good use of work tools.
- Drop of wastes into the relevant containers.

References

- [1] The international day of security and health at work, ISHP, Ministry of Health <http://www.ishp.gov.al/dita-boterore-e-sigurise-dhe-shendetit-ne-pune/>
- [2] Hernández, Fernando Gil (2011-12-02). Tratado de Medicina del Trabajo (spanish edition) (kindle locations 44050-44138). Elsevier Masson. Kindle Edition.
- [3] Risk Evaluation to health care, European Agency of Security and Health at work - <http://osha.europa.eu>, http://www.sli.gov.al/images/stories/focal_point/efact18.pdf
- [4] Personal de Enfermería: condiciones de trabajo de alto riesgo. / borges romero, a. <http://www.bvsde.paho.org/bvsast/e/fulltext/personal/personal.pdf>
- [5] Prevención de riesgos laborales, 2012, Fernando Luna Rosauo, ISBN: 978-84-9931-514-0.
- [6] Salud, <http://es.wikipedia.org/wiki/salud>
- [7] Public Health, http://sq.wikipedia.org/wiki/sh%c3%abndeti_public
- [8] Public Health, Gentiana Qirjako, Genc Burazeri, Enver Roshi, Vitori Hasani, ISBN 978-99956-48-46-6, Tiranë 2010
- [9] (2012, 10). Cuestionario Sobre Salud Ocupacional Y Riesgos Laborales. BuenasTareas.com. Recuperado 10, 2012, de <http://www.buenastareas.com/ensayos/Cuestionario-Sobre-Salud-Ocupacional-y-Riesgos/5709733.html>.
- [10] Carolina Gisel Rodriguez Bravo, Exposicion a peligros ocupacionales de los profesionales de enfermeria de urgencias, unidad de cuidados intensivos y salas de cirugia del hospital universitario San Ignacio en la ciudad de Bogota, durante el periodo comprendido mayo-junio de 2009.
- [11] Servizio di Prevenzione e Protezione, Principali Rischi in Ambiente Ospedaliero, http://www.aslcn2.it/pagine/ita/servizio_prevenzione_e_protezione/principali_rischi_in_ambiente_ospedaliero.l_asso
- [12] Medidas de bioseguridad que aplica el profesional de enfermeria y la accidentabilidad laboral en la unidad quirúrgica, hospital "dr. José María Vargas" en el segundo semestre de 2007, Téllez, Julia, Tovar Maritza, Caracas, enero de 2008.
- [13] Arellano, M. Y Mark, a. (2002) Factores de riesgo biológico a los que esta expuesto el profesional de enfermería del área quirúrgica
- [14] Basic Principles of general nursing, E. Kijaj, A. Ramaj, 2012, ISBN 978-99956-91-43-1.
- [15] Ergonomía, Juan Verzini, www.monografias.com.
- [16] Prevención de riesgos laborales en el sector sanitario, <http://www.riojasalud.es/profesionales/prevencion-de-riesgos/872-prevencion-de-riesgos-laborales-en-el-sector-sanitario?shoëall=1&limitstart=>
- [17] Asesoramiento, http://www.tagu.com.ar/7601_Asesoramiento-Integral-en-Higiene-y-Seguridad
- [18] Ministry of Environment, Woods, Ministry of Health and water administration, rule nr.6, date 30.11.2007 "For administration of hospital scrapes".
- [19] Rifiuti sanitari, <http://www.bio.unipd.it/safety/man/rifsanit.htm>
- [20] Angel Javier Vicente Perez, 2005, Prevencion de riesgos laborales, , ISBN 84-7356-421-9.
- [21] Prevención vigilancia y control de riesgos profesionales, <http://www.risaralda.gov.co/sitio/salud/index.php/riesgos-profesionales>
- [22] Law Nr. 10237, date 18.2.2010 For Security and Health at work
- [23] Guide about incidents at work http://www.chemicals.al/vkm/ligj_nr_10237_dt_180220_10%20per%20sigurine%20ne%20pune.pdf
- [24] Successful Management to Prevent Accidents, European Agency for Safety and Health at Work, http://www.sli.gov.al/images/stories/focal_point/factsheet13_al.pdf

- [25] International Labour Organization. Working conditions, <http://www.ilo.org/global/topics/working-conditions/lang--en/index.htm>
- [26] Trabajo, la revista de la OIT, Trabajo decente=trabajo seguro, La salud y seguridad en el trabajo, agosto de 2008, http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_099653.pdf
- [27] International Hazard Datasheets on Occupation, Aid Nursing, http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/publication/wcms_184638.pdf
- [28] ILO, IEA, Ergonomic Checkpoints, second edition 2010, practical and easy-to-implement solutions for improving safety, health and working conditions, ISBN 978-92-2-122666-6, http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/instructionalmaterial/wcms_178593.pdf
- [29] Leaflets, What to do in case of an accident?, http://www.sli.gov.al/index.php?option=com_content&view=category&layout=blog&id=37&Itemid=81&lang=al
- [30] How should we act, in the event of an accident?, http://www.sli.gov.al/index.php?option=com_content&view=article&id=85%3Aasi-duhet-te-veprojme-ne-rast-te-ndodhjes-se-nje-aksidenti&catid=41%3A1-faq&Itemid=59&lang=al
- [31] Sa janë afatet e plotësimit të proces verbalit të aksidentit në punë?, http://www.sli.gov.al/index.php?option=com_content&view=article&id=86%3Aasa-jane-afatet-e-plotesimit-te-proces-verbalit-te-aksidentit-ne-pune&catid=41%3A1-faq&Itemid=59&lang=al
- [32] What are the sanctions if the notification doesn't happen? http://www.sli.gov.al/index.php?option=com_content&view=article&id=84%3Aanese-nuk-behet-njoftimi-cfare-sanksionesh-ka&catid=41%3A1-faq&Itemid=59&lang=al
- [33] Law Nr. 9634, date 30.10.2006 "For work inspection and National Work Inspectorate "
- [34] A duhet të njoftohet Inspektoriati i Punës, nëse ndodh një aksident i lehtë? http://www.sli.gov.al/index.php?option=com_content&view=article&id=83%3Aa-duhet-te-njoftohet-inspektoriati-i-punes-nese-ndodh-nje-aksidenti-i-lehte&catid=41%3A1-faq&Itemid=59&lang=al
- [35] The meeting with partners for the Law of Health and Security at work. 14.04.2010, The awareness increase about implementation challenges The Law of Health and Security at work. <http://www.mpcs.gov.al/zedhenesi/34-fjalime-opinione-te-ministrit-spiro-ksera/339-takimi-me-partneret-per-ligjin-per-sigurine-dhe-shendetin-ne-pune-14042010>
- [36] Over the legislation of OSH http://www.sli.gov.al/index.php?option=com_content&view=article&id=63&Itemid=109&lang=al
- [37] In the Work Parliamentary Commission for the bill about Health and Security at work. -11-02-2010, <http://www.mpcs.gov.al/zedhenesi/34-fjalime-opinione-te-ministrit-spiro-ksera/336-ne-komisonin-parlamentar-te-punes-per-pligjin-per-sigurine-dhe-shendetin-ne-pune-11-02-2010>
- [38] Medical legislation http://www.sli.gov.al/index.php?option=com_content&view=category&layout=blog&id=53&Itemid=78&lang=al
- [39] Medical legislation http://www.sli.gov.al/index.php?option=com_content&view=category&layout=blog&id=38&Itemid=78&lang=al
- [40] Work Ministry, awareness campaign in the whole country for the work Security and Health. Legislation approximation is an accomplished obligation of this government. <http://www.mpcs.gov.al/zedhenesi/6-njoftime-per-shtyp/373-ministria-e-punes-fushate-sensibiluese-ne-te-gjithe-vendin-per-ligjin-per-sigurine-dhe-shendetin-ne-pune>
- [41] Law approval for Health and Security ends the lack of a vision about politics of work risks prevention. 14.04.2010, http://www.sli.gov.al/index.php?option=com_content&view=article&id=110%3Aseminar-rritja-e-ndergjegjesimit-mbi-sfidat-qe-sjell-implementimi-iligjit-per-sigurine-dhe-shendetin-ne-pune&catid=51%3A9-other-activities&Itemid=73&lang=al
- [42] Këshilli i Ministrave miraton projektligjin "Për Sigurinë dhe Shëndetin në Punë", 16.12.2009, http://www.sli.gov.al/index.php?option=com_content&view=article&id=99%3Akeshilli-i-ministrave-miraton-projektligjin-per-sigurine-dhe-shendetin-ne-pune-&catid=51%3A9-other-activities&Itemid=73&lang=al
- [43] European Agency of Health and Security, European Confederation of Syndicates. Healthy work positions, let's work together for risk prevention. Worker's participation on security and health problems at work- A practical guide. ISBN 978-92-9191-914-7
- [44] *Republic of Albania Work Code, Edition of Official Publication Center, September 2003*, http://www.mpcs.gov.al/dpsbh/images/stories/files/kodet/3.3.1._Kodi_Punes.pdf
- [45] Prevention Service, Sanitary and Safety at work environments http://www.ulss15.pd.it/nqcontent.cfm?A_id=130
- [46] Decision Nr.742, Date 6.11.2003 For some extras and changes in Decision Nr.692, Date 13.12.2001 Cabinet "For special Insurance and Protect measures of health at work. Most common mistakes during risk evaluation http://www.sli.gov.al/images/stories/focal_point/efact32.pdf
- [47] Valutazione del rischio, <http://www.bio.unipd.it/safety/man/valutazione.html>
- [48] Documento Técnico: Protocolos de Exámenes Médico Ocupacionales y Guías de Diagnóstico de los Exámenes Médicos obligatorios por Actividad, Dirección General de Salud Ambiental Ministerio de Salud Lima – Perú, © MINSAs, Abril 2011.

- [49] Rule Nr.15/255, date 2.9.1968, General sanity rule of working and production centers, Chapter 3, Personal Protective tools
<http://www.qbz.gov.al/doc.jsp?doc=docs/Rregullore%20Nr%2015-255%20Dat%C3%AB%2002-09-1968.htm>
- [50] Bioseguridad en el área quirúrgica, www.monografias.com,
- [51] What does Public Health Institution offer for the employer? Health protect and insurance too.
http://www.sli.gov.al/index.php?option=com_content&view=article&id=52&Itemid=110&lang=al
- [52] ISKSH – Syndicates, Collective work contract, 07/11/2012,
http://www.isksh.com.al/index.php?option=com_content&view=article&id=324:isksh-sindikatat-kontrate-kolektive-pune&catid=26:lajme&Itemid=86
- [53] Guide,
http://www.sli.gov.al/index.php?option=com_content&view=article&id=59&Itemid=82&lang=al
- [54] (2011, 09). Riesgos en enfermería. Buenastareas.com. Recuperado 09, 2011, de <http://www.buenastareas.com/ensayos/riesgos-en-enfermeria/2777156.html>
- [55] Safety and Health at Work, <http://www.ilo.org/global/topics/safety-and-health-at-work/lang--en/index.htm>
- [56] Workplace, Safety + Health Profile, Ministry of Manpower, Singapore,
http://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---sro-bangkok/documents/policy/wcms_208348.pdf
- [57] Vanessa Ortiz, personal de enfermería debe capacitarse en prevención de accidentes laborales, <http://bitacora.ivic.gob.ve/?p=2132>, 8 julio 2011 at 12:27
- [58] Occupational Risk Factors. Marisol Concha-Barrientos, Deborah Imel Nelson, Timothy Driscoll, N. Kyle Steenland, Laura Punnett, Marilyn A. Fingerhut, Annette Prüss-Üstün, James Leigh, Sangwoo Tak And Carlos Corvalan,
<http://www.who.int/publications/cra/chapters/volume2/1651-1802.pdf>